

PART II: STRATEGIES TO ACHIEVE, MAINTAIN, AND MONITOR WATER QUALITY GOALS

Coordination Between Regulatory- and Incentive-Based Programs

Tributary Strategies, TMDLs, NPDES Permits, Land Use Planning, and Agricultural Conservation Programs

Tributary Strategies and TMDLs are parallel and complementary programs. Both set quantitative loading goals on a watershed basis. In general, TMDLs are developed for smaller basins to correct local water quality impairments. Tributary Strategies are for larger basins and are usually more stringent than TMDLs. The Tributary Strategies typically require additional load reductions to meet the water quality needs of the Chesapeake Bay and its tidal tributaries.

TMDLs, having a basis in regulation, may result in regulatory action, such as more restrictive permits. Tributary Strategies, being a cooperative implementation program, do not necessarily have the connection to permits. Through Governor Robert Ehrlich's ENR Policy and Bay Restoration Fund, however, Maryland is incorporating Tributary Strategies into NPDES permits. The *Tributary Basin Level Implementation Plans*, to be developed by the Tributary Teams and local governments, will also provide the foundation for

implementation of nutrient and sediment TMDLs. TMDLs are consistent with the Tributary Strategies because both recognize that action in the watershed is essential to protect downstream water quality, including the Chesapeake Bay and tidal waters.

Actions to reduce nutrient loadings, commonly called BMPs, are the critical tools of both TMDLs and the Tributary Strategies. Any reductions in nutrient and/or sediment loads accomplished through these practices make progress for both programs and are being tracked. Other practices, such as land use planning or agricultural conservation programs, also aid in achieving the TMDL and Tributary Strategy goals, although their primary purposes may be different. Land use planning structures communities so that the need for public utilities is met and conflicting uses do not impair community functions. Appropriate planning can contribute to water quality improvements and/or reduce future degradation of water quality by minimizing sprawl and impervious surface and by taking water quality into account when planning communities. Likewise, agricultural conservation programs can help maintain an economically viable rural economy while protecting water quality

by limiting development and additional impervious surface and by taking minimally productive land out of farming and letting it return to forest, pasture, or wetland.

Local governments are encouraged to continue investing in and tracking remediation activities for which quantified load reductions have yet to be estimated. The entire Bay Community is working on quantifying these practices. Demonstrating continuing progress through ongoing and expanded programs is essential. State and local staff should continually seek opportunities to plan innovatively with the recognition of water quality goals and to implement regulatory and voluntary programs in ways that maximize the protection and restoration of water quality.

It is critical to recognize that meeting and maintaining water quality standards is the final goal, not load allocations. Load allocations are the best estimate of what is necessary to achieve the water quality standards.

Priority Places

There is a perception that TMDLs oppose or are contradictory to Priority Places or Smart Growth policies and that TMDLs will prevent high density growth that will negatively impact water quality in places where there is supporting infrastructure. The first and most obvious response is “Who would want to live

in a place with poor water quality if they could avoid it?” The less obvious response is that there really is not a contradiction. There just needs to be a recognition that the patterns, types, methods, and costs of development need to be revised to meet all of a community’s needs.

TMDLs do not prevent development. They simply provide a quantitative assessment of the allowable loads of a pollutant into a water body. Some argue that TMDLs will eventually prevent growth. Growth can be accommodated and water quality can be restored and maintained through offsets,





mitigation, improved control structures, minimization of impervious surface, pre-treatment, and maintenance of ecosystems that provide for pollution minimization (e.g., wetlands).

This statement is a broad generalization because some areas may be particularly sensitive to pollution, other areas may not provide for offsets, and there is likely some limit to the density that can be accommodated. In the New York City metropolitan area, for example, TMDLs are being implemented that will meet the water quality standards of Long Island Sound. If it can be done there — considering the population density on the North Shore of Long Island and the South Shore of Connecticut and the discharges from Manhattan — then it should be possible in many places. Communities need to plan more extensively for the environmental aspects of their community, particularly what “build out” should look like.

Comprehensive Plans

All communities have to provide comprehensive plans. These plans address many environmental issues. In the past, it was impossible to address water quality in a quantitative way as part of the planning process. TMDLs now provide that planning opportunity.

Although all the Bay watershed’s TMDLs have not been completed, more than 100 are finalized. The Tributary Strategies also provide a quantitative basis for the limits that should be explored through the planning process. To take the next step into quantitative water quality planning, municipalities and local governments will also use pollution factors for each land use — a list of factors that enable communities to at least do “back of the envelope” calculations of net pollution loadings resulting from land use changes — and technical assistance that the State agencies are willing to provide (e.g., “Scenario Builder”).

